Eobody2HF Wireless

USB Wireless Sensor Interface

The wireless solution for dancers and installations

User's Manual

interactive sensor tools

Safety instructions

Before using your Eobody2 HF, make sure you have read the following instructions carefully.

Do not open or modify the unit or its main adapter when the unit is externally powered.

During ligthning, unplug the unit, make sure the main adapter (if one) is not plugged.

Before cleaning your Eobody2 HF, make sure the main adapter and/or any external elements are disconnected from the unit.

Do not try to repair the interface or the components inside of it. Please contact eowave for technical support at sales@eowave.com

Do not use your Eobody2 HF nor store it in dusty areas, damp areas, extreme temperatures, exposed to direct sunlight, areas prone to strong vibrations.

Do not insert any objects nor pour any liquid into the unit.

Protect the unit against violent shocks.

Never touch your Eobody2 HF nor its adapter with wet hands when it is plugged in.

Never place heavy objects on your Eobody2 HF.

All trademarks are property of their owners.

Congratulations

Congratulations!
You now own a new Eobody2 HF, a versatile wireless usb-to-sensor interface.
Eobody2 HF is unique because it offers an internal powerful processing to shape the outcoming sensor signal and let you get the best results in an intuitive and easy way. No MIDI interface needed, no skills in computer programming required. The freedom of wireless.

Unpacking

Your Eobody2 HF case should include the following items. Make sure everything is in the box.

- 1 Eobody2 HF Wireless receiver
- 1 Eobody2 HF Wireless transmitter
- 1 usb mini cable
- 1 rechargeable battery (inside the transmitter)

in option:
dance pouch
additionnal arm band
belt

Naming things

Eobody2 HF Wireless receiver: this part is connected to the computer via USB. The receiver receives the data from the transmitter unit.

Eobody2 Wireless transmitter: sensors are connected to the transmitter. The transmitter (in a box or in a soft pouch) can be carried by dancers for dance peformances or integrated into an instrument or any other object.

From the Idea…

Men have always dreamt of new ways of communication. Through ages, men have thought of their body as a tool of communication. And indeed, when communicating, this is not only your voice, nor the only expression in your face that transmits a message, but your entire way of being. This is your entire body which projects you inside the individual world of one another. In all cultures, men have developped new ways of communication through dance, music, art. And still in a matter of a better communication, men have always worked to improve the interaction between men and machines, thus since the very beginning of mechanics and later, electronics. More and more, the body has become the cornerstone of interactive systems of communication. New technologies widen the range of controls. And controls have entered everyday's life without us noticing. Remote controls are everywhere: we control TV, we control VCRs, DVDs, stereos, ovens, climates, windows, garage doors… Control surfaces are everywhere. Faced to art, control appears to be the new way of expression of this early millenium. Many artists are looking for new ways of expression, of conceptualizing ideas… In this perspective, sensors open new dimensions of expression. Eobody2 is the key link between the world of analogue sensors and digital systems.

…To the Realization

An early version of Eobody2 has been first presented at NIME 2007 (New Interfaces for Musical Expression) hold at New-York University in June 2007. The idea was to keep a plug and play modular system to use sensors as well as relays, CVs... The usb 8 SensorBox is one of the first modules of this new Eobody2 interactive system. One SensorBox enables to plug 8 sensors and use them directly with your sequencer software, but you can also plug more if you need more inputs for other sensors. The goal was to come to a plug & play solution and versatile solution (and at a reasonnable price) for all those who don't want to go into computer programming or wire soldering, but whose job is to create music, live, video apps, sensor-based instruments or installations...

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I. Register and Install

Register

You may register on www.eowave.com/register.php by entering your Eobody2HF serial number. This number is located on a sticker on the back of the receiver unit. Registering will give you a member access to the download page to download the editor, user manual, patches, news, upgrades...

On www.eowave.com/register.php, fill in the online registration card and enter your serial number.

Downloads & online documentation

Download and install the editor

On www.eowave.com/download.php page, click on eobody2HF_editor.
Eobody2 HF Editor is Mac and PC compatible.
Eobody2 HF editor needs Max runtime as a driver. If you don't already have a Cycling74 Max5 version installed on your computer, you may download a 30 days free trial of Max5 on www.cycling74.com
This free trial will automatically install Max runtime on your computer. When the 30 days trial is over, Max5 runtime will remain on your computer.
When you have succefully installed Max5 runtime, you may open Eobody2 HF editor.
For any questions or support concerning the installation of the editor, contact info@eowave.com

For Maxers
If you are a Maxer and want to use Eobody2HF with Max/MSP/Jitter, note that the Eobody2 HF Editor is a Max5 collective file. This avoids having 2 Max apps running on the same computer.

When the installation of the editor is done, a window pops up and tells you that the installation was successful.

Download the manual

On www.eowave.com/download.php page, click on the Eobody2 HF manual pdf file. This manual is also available in French.

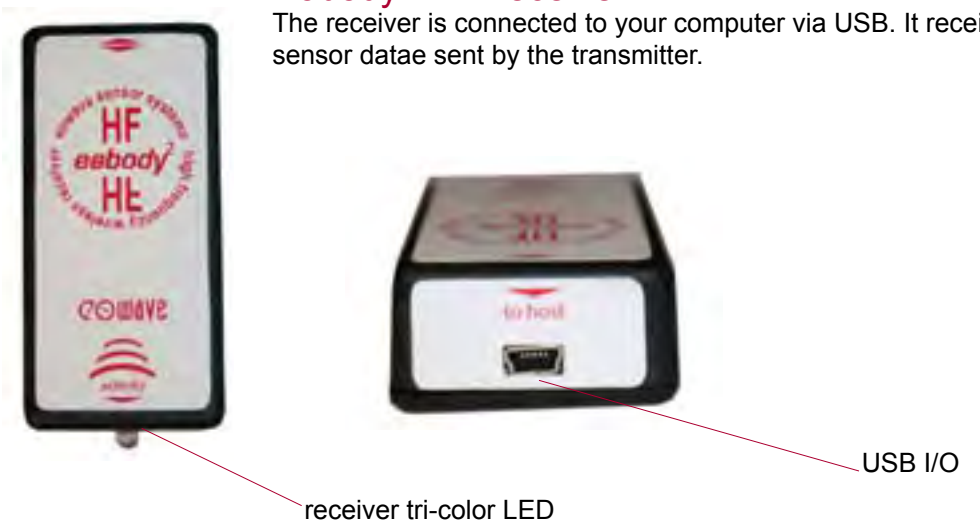
Download the tutorials

Different tutorials are also available on www.eowave.com/download.php page.

II. Quick Overview: What's What

Eobody2HF Receiver

The receiver is connected to your computer via USB. It receives the sensor datae sent by the transmitter.



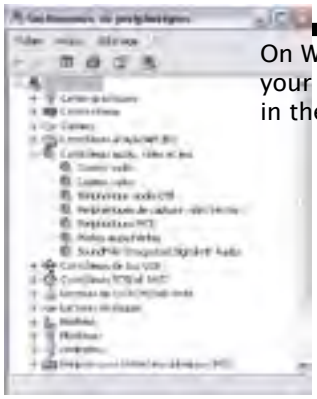
Eobody2HF Transmitter

Sensors are connected to the transmitter. The sensors are plugged to the 3 pins connectors.

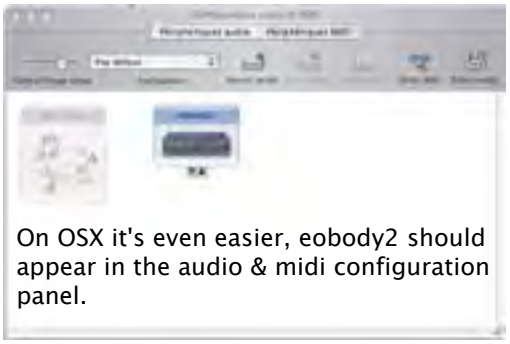
III. Quick start

Connect the receiver to your computer

Connect the receiver to your computer with the USB mini cable (or to any USB hub connected to your computer). You do not need any MIDI interface. Your Eobody2 HF will be recognized as a new audio device for PC, as Eobody2 MIDI interface with Mac. When right connected, the receiver LED turns green.



On Windows (here the French version on XP), your eobody2 should appear as an audio device in the audio /video & game device window.



On OSX it's even easier, eobody2 should appear in the audio & midi configuration panel.

Two or more Eobody2 HF can be connected directly to the USB inputs of your computer, but they can also be connected via a USB hub. When more than one Eobody2 HF are connected, they will appear like different audio peripherical with PCs, different Eobody2 HF MIDI interface with Mac. In this case, you will be able to rename your Eobody2 with different names. When the units have been named, their given name will appear. (See Global Parameters Section). Theorically, 16 receivers may be active in the same area, but this number may be reduced depending on the area radio perturbation...

Connect a sensor to the transmitter

Eowave sensors compatible with the Eobody2HF wireless interface have a thin 3 pins connector. To connect a sensor to the transmitter, just plug the 3 pins connector in one of the male 3 pins connector from the transmitter. Sensors like accelerometers need 2 inputs. (See sensor technical datasheets).

Respect the sensor polarity

Note that this is highly recommanded to connect the sensors to the transmitter before starting your sequencer software. Unplugging sensors while using your sequencer software may cause breaks during the usb data transmission which could lead you to restart your software.

Check transmission

Try a sensor. When acting a sensor, the receiver LED blinks red. It means that the receiver is receiving the datae.

IV. Communication Channel Selection

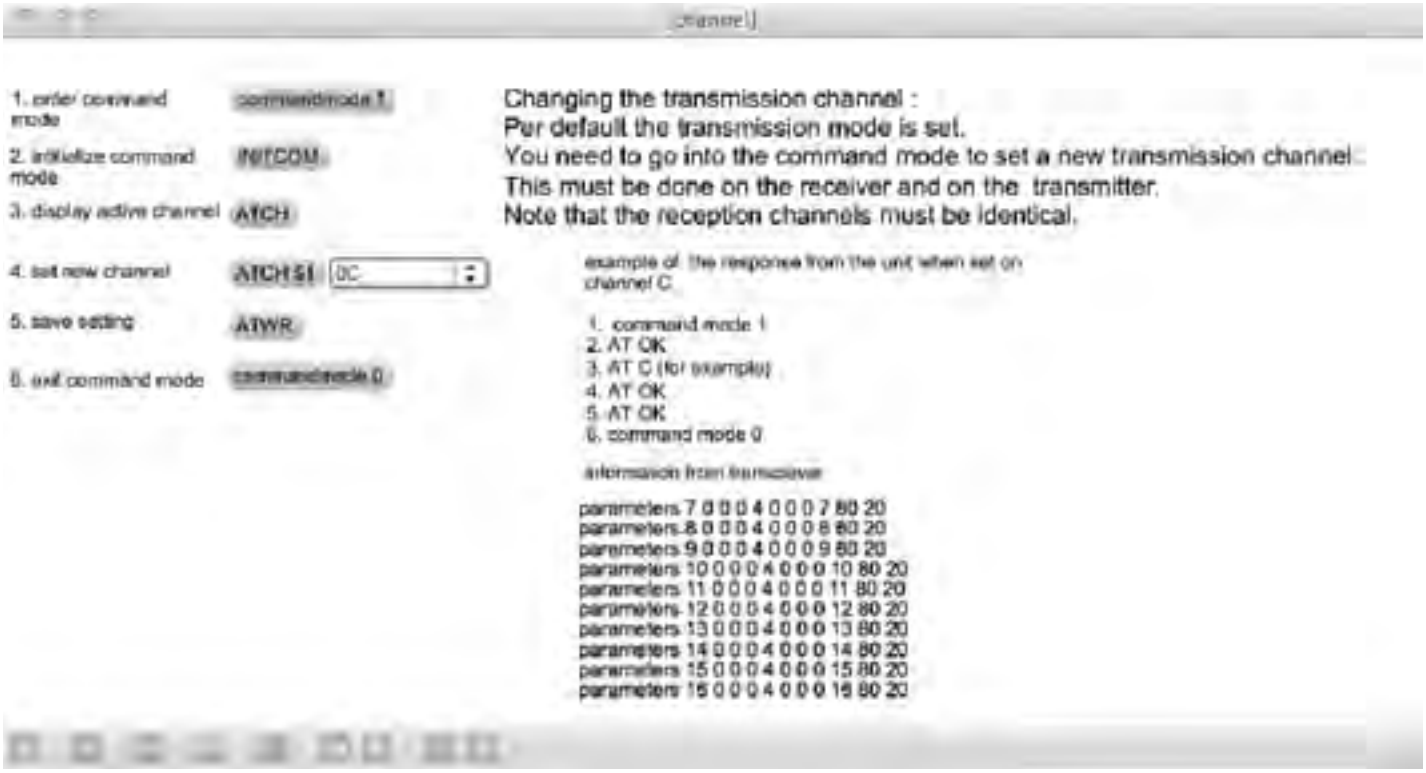
Per default, communication channel is set on channel #1.

This is an operation you'll have to do the first time you use your Eobody2 HF system if you want to set your system on another communication channel than channel #1 set per default. Once set on a particular channel, your emitter/receiver system will communicate on the same channel. There are 12 communication channels available. If you want to use your system on channel #1, you do not have to change the communication channel.

Changing the transmitter communication channel (this is only necessary when more than one unit is used in the same area)

Plug the transmitter via USB to your computer. Switch the transmitter on. The transmitter LED must light when it's on. Once you have launch Max5 runtime, open the Eobody2HF editor. In the editor, select the MIDI interface you are using in the list (Eobody2HF).

Click on RC Channel to set the new transmission channel. The following window opens:


1. order command mode
commandmode 1
2. initialize command mode
INITCOM
3. display active channel
ATCH
4. set new channel
ATCH 5
0C
5. save setting
ATWR
6. exit command mode
commandmode 0
Changing the transmission channel :
Per default the transmission mode is set.
You need to go into the command mode to set a new transmission channel.
This must be done on the receiver and on the transmitter.
Note that the reception channels must be identical.
example of the response from the unit when set on channel C
1. command mode 1
2. AT OK
3. AT C (for example)
4. AT OK
5. AT OK
6. command mode 0
information from transceiver
parameters 7 0 0 0 4 0 0 0 7 80 20
parameters 8 0 0 0 4 0 0 0 8 80 20
parameters 9 0 0 0 4 0 0 0 9 80 20
parameters 10 0 0 0 4 0 0 0 10 80 20
parameters 11 0 0 0 4 0 0 0 11 80 20
parameters 12 0 0 0 4 0 0 0 12 80 20
parameters 13 0 0 0 4 0 0 0 13 80 20
parameters 14 0 0 0 4 0 0 0 14 80 20
parameters 15 0 0 0 4 0 0 0 15 80 20
parameters 16 0 0 0 4 0 0 0 16 80 20

Follow the instructions:
1. Enter command mode by clicking on commandmode 1
2. Initialize command mode by clicking on INITCOM. You get the message AT OK -- if not, try again.
3. Display active channel by clicking on ATCH. You get the message AT +new channel
4. Set new channel from the scrolling menu. You get the message AT OK
5. Save setting by clicking on ATWR. You get the message AT OK
6. Exit command mode by clicking on commandmode 0

Changing the receiver communication channel

You will proceed the same way with the receiver.
Plug the receiver to the usb in of your computer. The receiver LED will turn green when right plugged.
Make sure to select the same tranmission channel than the one set on the transmitter.

V. Questions of power...

Receiver powering

USB enables self powering. Just plug the usb from Eobody2HF receiver to your computer usb in. The receiver LED will turn green and off when the unit is well connected.

Transmitter powering

One of wireless systems biggest issue is the question of the transmitter autonomy vs battery weight.
The transmitter is delivrered with a rechargeable lithium battery. The battery autonomy depends on the number of sensors used and on the type of sensors used.
To recharge the battery, plug the transmitter via USB to the USB I/O of your computer. At the first use, we recommend that you charge the battery for 1 night.

VI. Understanding the Receiver LED language

The receiver LED is a tri-color LED. Here is the color code:

1 It's green!

When connected to the USB in of your computer, the receiver LED will turn green. This means that it's well connected and active.

2. It's green/orange!

When the receiver LED blinks green/orange, it means that the transmitter communicates with the receiver and sends datae, and/or vice versa.

3 It's red!

A red LED means that the receiver is in programmation mode.

4 It's red/green

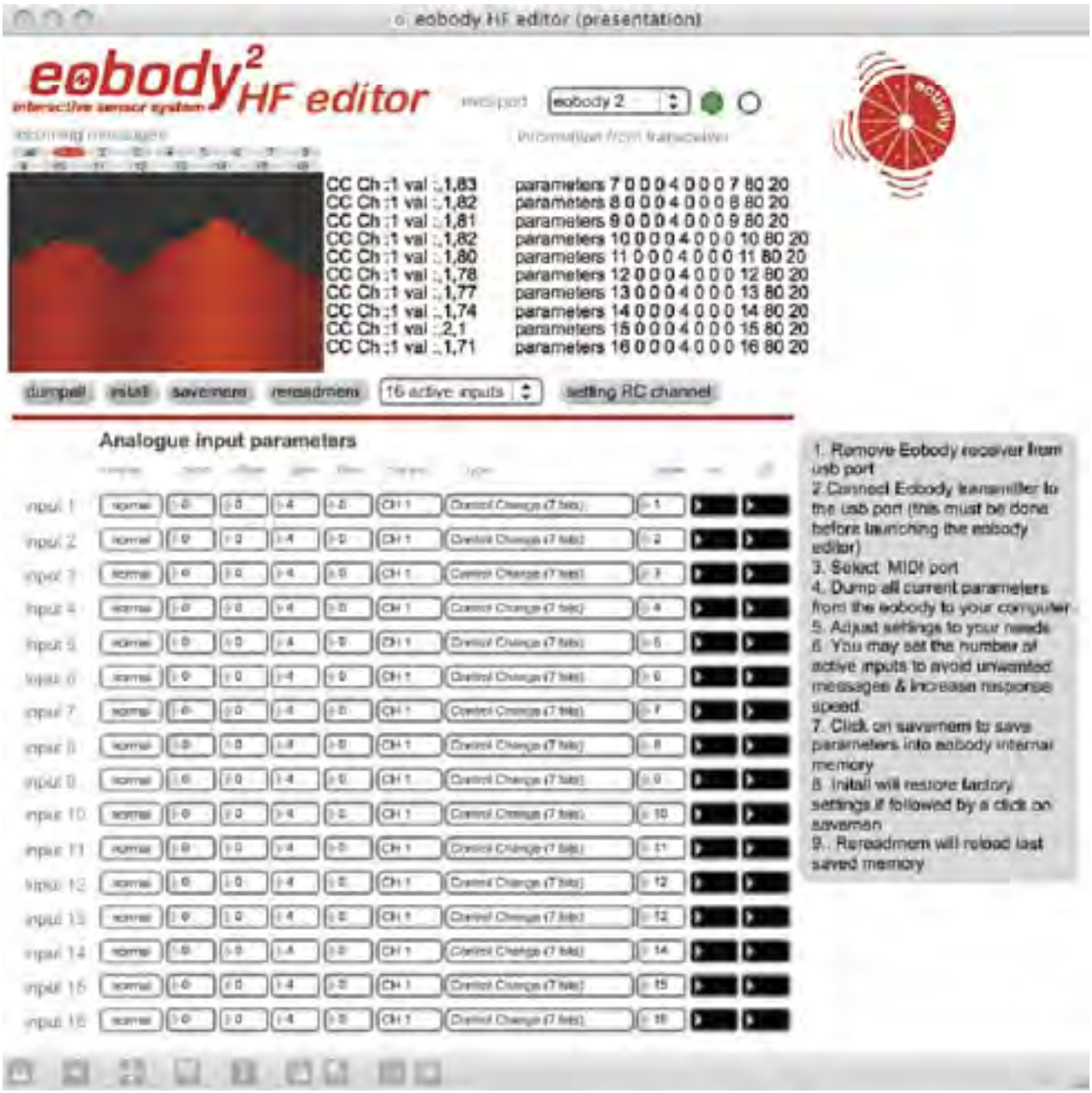
Check channel

VII. Eobody2HF editor

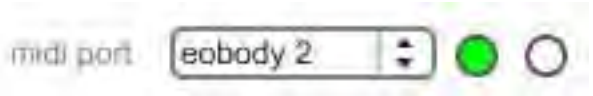
The Eobody2HF editor enables to edit the emitter settings and save them into the emitter internal memory. Note that the emitter will be the core of your settings, not the receiver. The emitter must be plugged before starting the editor.

Open the editor

One of the first thing you did when you got your Eobody2HF was to download and install the editor. Refer to “Register and Install section if you have not). Once Max5 runtime is launched, double click on the editor icon to open it. The following window opens:


eobody HF editor (presentation)
eobody 2 HF editor
interactive sensor system
eobody 2
dumpall
initall
savemem
rereadmem
16 active inputs
setting RC channel
Analogue input parameters
1. Remove Eobody receiver from usb port
2.Connect Eobody transmitter to the usb port (this must be done before launching the eobody editor)
3. Select MIDI port
4. Dump all current parameters from the eobody to your computer
5. Adjust settings to your needs
6. You may set the number of active inputs to avoid unwanted messages & increase response speed.
7. Click on savemem to save parameters into eobody internal memory
8. Initall will restore factory settings if followed by a click on savemem
9.. Rereadmem will reload last saved memory

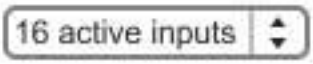
Eobody2HF and your computer



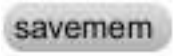
1. Select Eobody2 MIDI port
Eobody2 uses the MIDI protocol to transfer data, that means it is compatible with almost every MIDI software.
First, you need to select “eobody 2” in the midi port scrolling menu.
The factice LEDs in & out will light up when receiving/sending messages.

2. Dump all current parameters from Eobdy2HF memory to your computer by clicking on “dumpall”

3. Adjust the analogue inputs parameters settings you need. Refer to the following section for a detailled description of each feature.

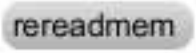


4. Set the number of active inputs to avoid unwanted messages and to increase the response speed.



5. Click on “savemem” to save parameters into the Eobody2HF internal memory.

6. “Initall” will restore factory settings when confirmed by a click on savemem.



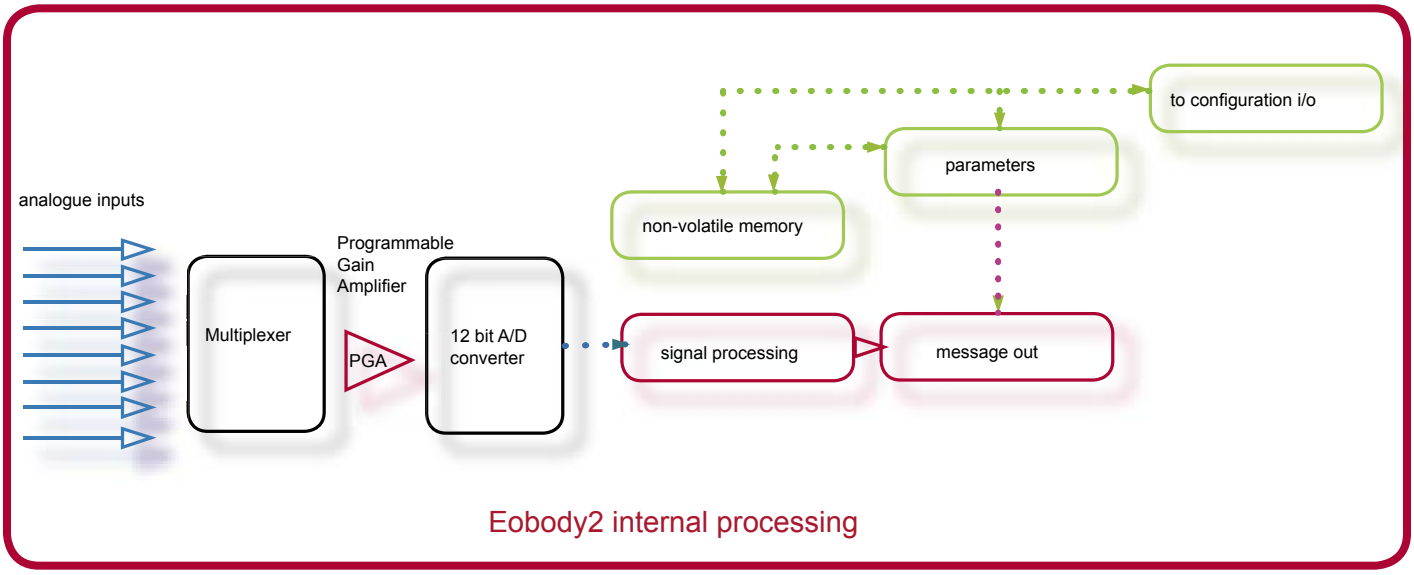
7. Rereadmem will reload last saved memory

Factory settings

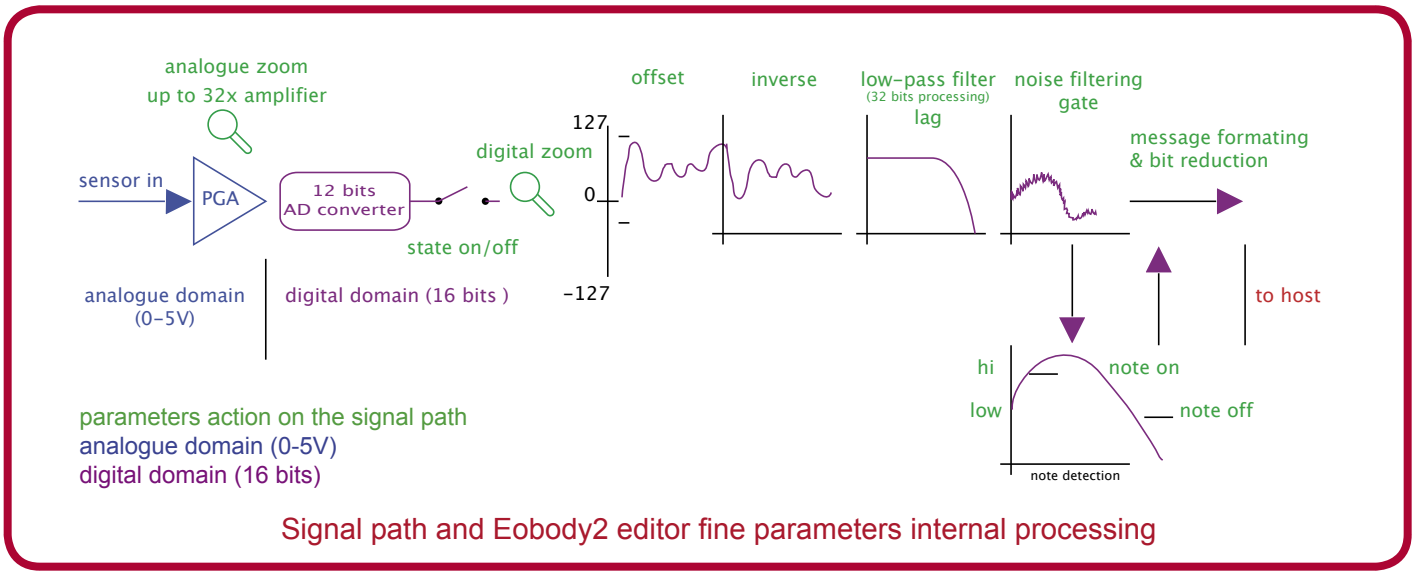
Factory settings are controllers 1 to 16 on MIDI channel 1.

Internal process & editor parameters

Eobody2 offers a complex internal pre-processing of the data you may set in the editor.



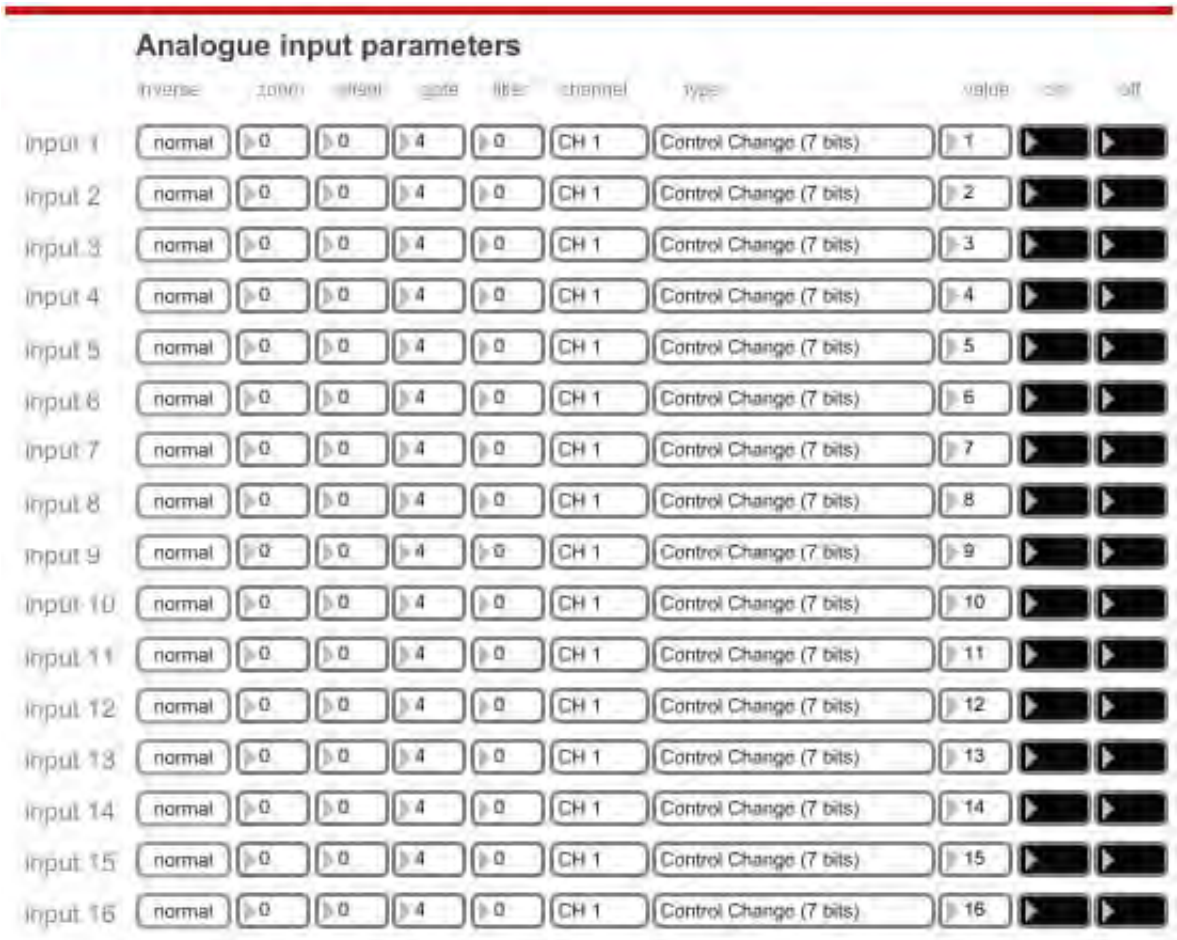
Eobody2 internal processing



Signal path and Eobody2 editor fine parameters internal processing

Analogue input parameters window

The parameters window enables to adjust internal processing parameters for each input (1 to 16).
Refer to the description of each parameter for use. To increase or decrease parameter values, click on the case you want to edit and slightly move up or down your mouse. To save a configuration, click on «savemem».



What are these internal processing parameters?
Eobody2HF is not just an analogue-to-digital wireless converter, it has a unique internal processing especially designed to analyse, process and configure the signal before it is sent to the host. This internal processing offers several advantages.
> Pre-configured parameters processings have been designed considering most common sensor use and are perfectly adapted to sensor use for musical or video applications.
> You can use Eobody2HF directly with your software sequencer without programming needs.
> Internal processing does not use your computer cpu, so you can keep more cpu resources for your apps.
> Internal configuration can be saved inside Eobody2HF internal memory for future use.
> Parameters filter the signal to optimize data to be sent to the computer and get a better response from sensors. With these, you will be able to choose parts of the signal to be processed, define the signal resolution, add a noise gate, a lag low-pass filter, inverse the signal, choose the type of message to be sent...

inverse

127 becomes 0 and 0 becomes 127. This way you may inverse the curse of a sensor. With an expression pedal, for example, you'll be able to inverse its curse.

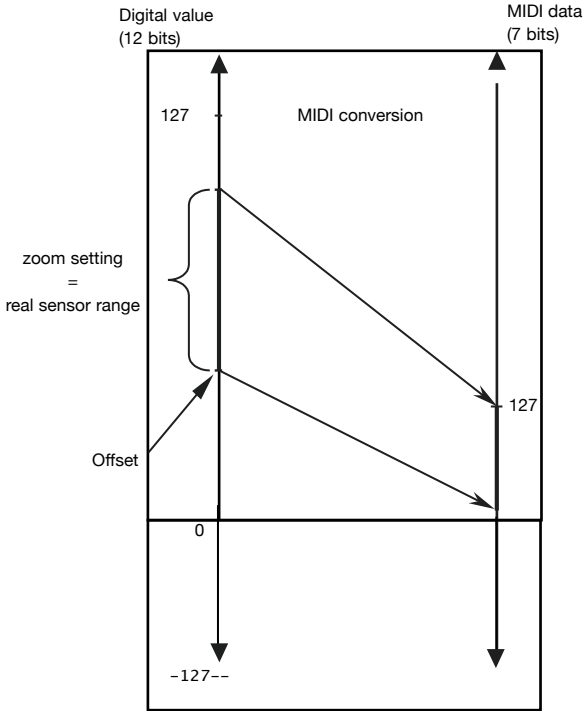
status

on/off

The status field indicates whether the signal on an analogue input should be converted into a digital message or not. This field may be set to ON or OFF. If the field is set to OFF, the input is said to be inactive and no message relating to that input will be generated, even if a signal does physically enter the device. If the field is switched back to ON, the input is active and its associated message will be sent each time the signal connected to that input varies in level.
Note:The smaller the number of active inputs is, the less data will be transmitted avoiding processor computation.

zoom and offset

zoom: max/mid/low/off on 7
offset: -127 to +127

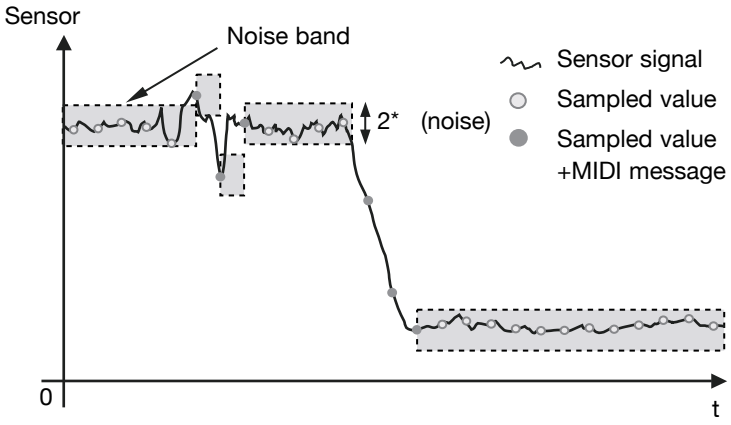


Want to stay in the 7-bit MIDI world...
Those two parameters (digital zoom and offset) specify how the real range of an analogue input can be mapped on a 7-bit MIDI value. As a matter of fact, a sensor does not necessarily have a range equal to the reference voltage of the Analogue to Digital Converter. A custom scaled zoom has been implemented on the digital value to take advantage of the 12-bit resolution of the A/D converter. Then, the user can select the sensor's range within the 12 bits dynamic by specifying a window size and an offset. The selected range can then be converted into 7 bits MIDI data without greatly increasing the quantification step, as shown in the illustration.

The digital zoom & offset parameters may be very useful to modulate a filter on a certain part of the amplitude.

gate

noise gate:8 values [0-7]



A noise gate threshold reduces the bit depht of the signal. If the analogue signal moves inside the range of the noise gate, no message will be sent. This field enables the user to set the width of the range. A large range will be very effective against strong noise but will make the values less sensitive to a relevant change of the analogue signal. A threshold of 5 corresponds to 127 different possible values (ie: the analogue has to change at least of 32 (from 4095 above or under its current position to be detected as changing). A threshold of 7 corresponds to 5 bits, usefull for switches or all on/off sensors.

filter

0-64

32 bits low-pass filter that smoothes the signal - for unstable sensors.

message Channel: [1-16]

This field enables the user to select a MIDI channel to which the MIDI message will apply (1 to 16).

Formating messages to host

type

This is one of the most important configuration parameters, since it determines which type of MIDI message the device is going to send in response to variations in a particular analogue input.
Eobody2 is capable of generating 5 different messages:

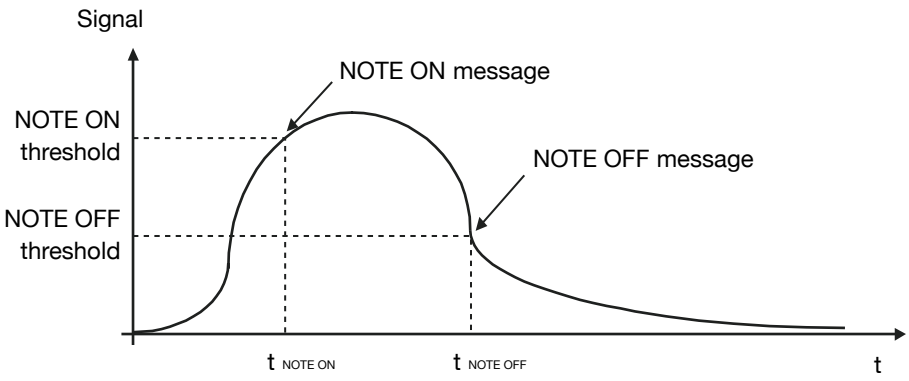
• CC: Control number change (Control change) 7 bits
CC: Control number change (Control change) 12 bits (the 5 LSB bits are mapped on CC number + 64
• Note: Note on Trigger
• PC: Program change
• PB: Pitch bend (Variation in pitch) real 12 bits
• PB: Pitch bend (Variation in pitch) mapped 14 bits
• ATm: Monophonic aftertouch (Channel pressure)

CC Control Change

This is the type of message which will likely be most often used for controlling sound parameters. The value of the analogue signal acts directly upon the value of a MIDI controller, using a MIDI controller Value Change message (control change). The number of the controller can be set by the user. If 12 bits resolution is selected, this message will actually send two Control Change messages.
The controller specified in the val field will send the 7 least significant bits whilst the controller specified in the “low” field will send the 3 most significant bits, on the same MIDI channel.

Note on message

N-ON trigger / hi-low
The analogue signal must correspond to an envelope changing with time and which has a maximum value. 3 parameters need to be specified: note sent, higher threshold, lower threshold. Eobody2 analyses this envelope: once the envelope has reached the higher threshold, a MIDI note on message (NOTE ON) is generated. The velocity associated with the note is fixed to 127. The note number contained within the message is adjustable by the user. As long as the envelope stays above a threshold point, named NOTE OFF threshold, the note is maintained (no new MIDI message is sent). When the level falls beneath the NOTE OFF threshold point, a MIDI NOTE OFF message is sent to turn the note off. To sustain the note for a long period of time, the NOTE OFF threshold point must be set on a small value. Conversely, to make the note stop shortly after the peak has been detected, the NOTE OFF value must be higher. This type of message is useful in using sensors to generate MIDI notes.
low *0 - 127*
This field enables the user to configure the note on activation level for trigger messages or for the MSB controller number with a lower threshold.
hi *0 - 127*
This field enables the user to configure the note on activation level for trigger messages or for the MSB controller number with a higher threshold.



Program Change message PC

The analogue signal must correspond to an envelope changing with time and which has a maximum value. You will have to specify 3 parameters, Program Change sent, higher treshhold, lower treshold. Eobody2 analyses this envelope: once the envelope has reached the higher threshold, a MIDI Program Change message is generated. The Program Change contained within the message is adjustable by the user. As long as the envelope stays above a threshold, named lower threshold, the Program Change is maintained (no new MIDI message is sent). When the level falls beneath the lower threshold, the Eobody2 is ready to receive a new Program Change message.

Pitch Bend PB

This message allows an analogue signal to generate a MIDI message of the pitch change type (pitch bend). Pitch is usually coded over 14 bits. If the 7 bits resolution is chosen, they will be mapped on the 7 most significant bits of pitch information controlled by the analogue signal. However, since Eobody2 does 12 bits conversions internally, the whole 12 bits can be mapped to take better advantage of the pitch bend message. This message is used to simulate the pitch changing wheels available on most MIDI keyboards.

Monophonic Aftertouch ATm

This message allows an analogue signal to generate a channel pressure type MIDI message (channel aftertouch). This pressure message affects a whole MIDI channel, regardless of what note is played. The channel number to which the pressure information is applied is selected by the user.

value val: 0 - 127

This field enables the user to set the fixed parameter of a MIDI message associated with an analogue input. This parameter value may correspond to a MIDI note number, a MIDI controller number or a MIDI program number, depending on the type of MIDI message which is chosen.

Configuration map for analogue inputs

Type of message	Res.	Value	Hi	Low
CC - Control Change	7 bits	CC value		
CC - Control Change	12 bits	CC value		
Note - Note on trigger	7 bits	note number	higher threshold	lower threshold
PC - Program Change	7 bits	PG value	higher threshold	lower threshold
PB - Pitch Bend	12 bits			
PB - Pitch Bend	14 bits			
ATm - monophonic aftertouch	7 bits			

VIII. Sensors compatibility

Sensor compatibility

Eowave sensors designed for Eobody2HF have been developped to get the best results from the sensor. Eowave does not warrantee the use of sensors from other brands or “handmade”.

Sensor connections compatibility

If you already have some Eowave sensors with jack 6,35’’connectors, you may build an adapter jack 6,35’’ to 3 pins. You can also purchase one from Eowave.

Sensors compatibility with 3,3V

Note that some active sensors requiring more than 3,3V, such as infrared sensors, cannot be used with the Eobody2HF. Check the power consumption of the sensors before using them.

IX. List of MIDI Controllers

N°	Function	Value		N°	Function	Value	
0	Bank Select	0-127	MSB	65	Portamento on/off	≤63=off ≥64=on	
1	Modulation wheel	0-127	MSB	66	Sustenuto on/off	≤63=off ≥64=on	
2	Breath control	0-127	MSB	67	Soft pedal on/off	≤63=off ≥64=on	
3	Undefined	0-127	MSB	68	Legato footswitch	≤63=off ≥64=on	
4	Foot controller	0-127	MSB	69	Hold 2	≤63=off ≥64=on	
5	Portamento time	0-127	MSB	70	Sound Controller 1	0-127	LSB
6	Data Entry	0-127	MSB		(Sound Variation)		
7	Channel Volume (formerly Main Volume)	0-127	MSB	71	Sound Controller 2 (Timbre)	0-127	LSB
8	Balance	0-127	MSB	72	Sound Controller 3	0-127	LSB
9	Undefined	0-127	MSB		(Release Time)		
10	Pan	0-127	MSB	73	Sound Controller 4	0-127	LSB
11	Expression Controller	0-127	MSB		(Attack Time)		
12	Effect control	0-127	MSB	74	Sound Controller 5	0-127	LSB
13	Effect control	0-127	MSB		(Brightness)		
14	Undefined	0-127	MSB	75	Sound Controller 6	0-127	LSB
15	Undefined	0-127	MSB	76	Sound Controller 7	0-127	LSB
16-19	General Purpose Controler	0-127	MSB	77	Sound Controller 8	0-127	LSB
				78	Sound Controller 9	0-127	LSB
20-31	Undefined	0-127	MSB	79	Sound Controller 10	0-127	LSB
32	Bank Select	0-127	LSB	80-83	General Purpose	0-127	LSB
33	Modulation	0-127	LSB		Controller (5-8)		
34	Breath control	0-127	LSB	84	Portamento Control	0-127	Source
35	Undefined	0-127	LSB				Note
36	Foot controller	0-127	LSB	85-90	Undefined	0-127	LSB
37	Portamento time	0-127	LSB	91	Effect 1 Depth	0-127	LSB
38	Data entry	0-127	LSB	92	Effect 2 Depth	0-127	LSB
39	Channel Volume (formerly Main Volume)	0-127	LSB	93	Effect 3 Depth	0-127	LSB
				94	Effect 4 Depth	0-127	LSB
40	Balance	0-127	LSB	95	Effect 5 Depth	0-127	LSB
41	Undefined	0-127	LSB	96	Data entry +1	N/A	
42	Pan	0-127	LSB	97	Data entry -1	N/A	
43	Expression Controller	0-127	LSB	98	Non registered	0-127	LSB
44	Effect control 1	0-127	LSB		Parameter Number LSB		
45	Effect control 2	0-127	LSB	99	Non registered	0-127	LSB
46	Undefined	0-127	LSB		Parameter Number MSB		
47	Undefined	0-127	LSB	100	Registered	0-127	LSB
48-51	General Purpose Controller (1-4)	0-127	LSB		Parameter Number LSB		
				101	Registered	0-127	LSB
52-63	Undefined	0-127	LSB		Parameter Number MSB		
64	Damper pedal on/off (Sustain)	≤63=off ≥64=on		102-119	Undefined		
				120-127	Mode messages		

X. MIDI Implementation Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default changed	* 1-16 * 1-16	X X	memorised
Mode	default Messages Altered	Mode 3 X X	X X X	
Note Number	True Voice	* 0-127 * 0-127	X X	memorised
Velocity	NOTE ON NOTE OFF	1-127 64	X X	
After Touch	Key Channel	o o	X X	
Pitch Bender		o	X	10 bit resolution
Control Change		* 0-127	X	memorised
Program Change		* 0-127	X	Program number 1-128
System Exclusive		o	o	
System Common	Song Pos Song Sel Tune	X X X	X X X	
System Real time	Clock Commands	X X	X X	
AUX Messages	Local ON/OFF All Notes OFF Active Sense Reset	X X X X	X X X X	

Mode 1: OMNI ON, POLY
Mode 2: OMNI ON, MONO
o: Yes
Mode 3: OMNI OFF, POLY
Mode 4: OMNI OFF, MONO
X: No

XI. Technical specifications

- A plug & play solution
- Use up to 16 modules simultaneously in the same area
- Plug up to 16 sensors per transmitter
- Connect Eobody2 receiver directly to the USB in of your computer or thru a USB hub for more inputs
- Unique DSP process designed for music and video applications
- PC, Mac & IntelCore compatible Eobody2 Editor
- Internal non volatile memory
- Store an entire installation or performance setup inside a Sensorbox and save it for a future use
- ESS DSP based
- 12 bits resolution
- Operating frequency: 2,4 GHz
- 30 meters indoor urban range/-100 meters outdoor
- Meets the IEEE 802.15.4 standart

Features

General
Compatible MIDI protocole
Eobody Editor : PC, Mac, IntelCore compatible
Non-volatile memory
USB powered

Receiver
Input type: USB
3 color activity LED
Low battery LED signal
Size: 76 x 36 x 18 mm

Transmitter
Number of sensor inputs : 16 per transmitter
Input type: socket

Ergonomic pouch designed for dancers
Pouch size: 105 x 95 x 10 mm
Board size: 65 x 60 x 10 mm
Weight: 30 g (battery not included)

ESS Internal Signal Process

Input resolution : up to 12 bit
Output : USB
Hi-speed USB
Message format types: Control change 7 bits/
Note: Note onTrigger/Program change/
Pitch bend mapped 14 bits /Monophonic aftertouch

Development Team

Marc Sirguy, Eowave CEO (micro controller programming, PCB, software, specs and concept)
Emmanuelle Gallin, Eowave (specs and concept, industrial design, manual)

Thanks

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We hope that this new version will fit all your needs... even better than before...

Contacts & support

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CE

CE norm & FCC INFORMATION

1. Important notice: do not modify this unit!
This product, when installed as indicated in the instructions contained in this manual, is compatible with the CE norm & FCC requirements.

2. Important!
When connecting this product to accessories and/or another product, use only high quality shielded cables. Cables supplied with this product must be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorisation to use this product in the USA.

Note: this product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class B digital devices & in The European Standard EN 50081-1 on Electromagnetic Compatibility - Generic emission standard on residential, commercial and light industry. Compliance with these requirements provides a reasonnable level of assurance that the use of this product in a residential environment will not result in harmful interference with other electronic devices.